Urs Hackstein (Ulm)
Principal G-bundles on p-adic curves and parallel transport

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We define functorial isomorphisms of parallel transport along étale paths for a class of principal
-bundles on a
-adic curve. Here
 is a connected reductive algebraic group of finite presentation and the considered principal bundles are just those with potentially strongly semistable reduction of degree zero. The constructed isomorphisms yield continous functors from the étale fundamental groupoid of the given curve to the category of topological spaces with a simply transitive continous right
-action. This generalizes a construction in the case of vector bundles on a
-adic curve by Deninger and Werner. It may be viewed as a partial
-adic analogue of the classical theory by Ramanathan of principal bundles on compact Riemann surfaces, which generalizes the classical Narasimhan-Seshadri theory of vector bundles on compact Riemann surfaces.

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